

WHAT IS CLAIMED IS:

1. A card comprising:

generally parallel top and bottom surfaces defining a space therebetween;

a pattern formed within the space, said pattern when illuminated with an input light producing a predetermined output light pattern.
2. A card as claimed in claim 1 wherein said space is typically less than 30 mils in height.
3. A card as claimed in claim 1 wherein said pattern formed within the space is formed with light pipes.
4. A card as claimed in claim 1 wherein said pattern is embedded between said top and bottom surfaces so that when an input light source illuminates one of said top and bottom surfaces a predetermined output light pattern is produced from the other of said surfaces.
5. A card as claimed in claim 4 wherein said pattern is a bar code.
6. A card as claimed in claim 4 wherein said pattern is a preselected image.
7. A card as claimed in claim 1 wherein said pattern is formed between said top and bottom surfaces such that the pattern extends between one side of the card and a second side of the card and wherein when an input light source illuminates the one side of said card an output light pattern is produced at said second side.
8. A card as claimed in claim 7, wherein said pattern includes a predetermined number of light pipes spaced from each other, with the spacing between the light pipes being predetermined and the size of each light pipe being predetermined.

9. A card as claimed in claim 1 wherein the input illumination to the light pipe pattern is applied to one side of the card and the light output is sensed from another side of the card between the top and bottom surfaces.
10. A card as claimed in claim 1 wherein the input illumination to the light pipe pattern is applied to one of the top and bottom surfaces of the card and the light output is emitted on a side of the card between the top and bottom surfaces.
11. A card as claimed in claim 1 wherein said pattern is formed using a plurality of optical fibers extending between one side of said card and a second side of said card, said optical fibers being arranged to form a predetermined pattern, whereby when said one side of said card is illuminated by an input light source an output light pattern is produced at the second side.
12. A card as claimed in claim 11 wherein said pattern is formed by severing selected ones of the optical fibers.
13. A card as claimed in claim 1 wherein said pattern is formed using a plurality of optical fibers extending in parallel to the sides of said card between the top and bottom surfaces of said card.
14. A card as claimed in claim 1 wherein said pattern is formed using a plurality of light pipes extending in parallel to the sides of said card between the top and bottom surfaces of said card.
15. A reader for reading the contents of a card containing a pattern formed between the top and bottom surfaces of the card, comprising:

means for projecting a source of light along one edge of the card for illuminating the pattern contained within the card;

photosensing means located along another edge of the card for sensing an output light pattern produced along said another edge of the card.

16. A reader as claimed in claim 15 wherein said reader also includes photosensing means for sensing an output light pattern produced along one of the top and bottom surfaces of the card.

17. A reader as claimed in claim 15 also including a source of light for illuminating one of the top and bottom surfaces of said card and also including photosensing means for sensing an output light pattern produced at the other one of said top and bottom surfaces.